

MaE Tech - COUNTER PANEL 16360IP NETWORK PROTOCOL Version 1.1 (27 march 2015)

Note about version:

1.1 : all bits in option byte used, and one changed function (leading zeros was usefulness). Version id is still "1" in packet, because there are no differences in packet structure or available commands.

Protocol used is TCP, default port 1636.

Host to 16360IP request packet structure:

field	name	size (bytes)	default value	description
1	ID	6	'M' 'a' 'E' '-' 'C' 'P'	fixed identification string
2	Version	1	0x01	version number
3	Command	1	0x10	for the moment only 0x10 is implemented, which means "refresh all counters".
4	Option	1	0x00	see option
5	Dimmer	1	0xFF	brightness of the leds, 0x00=dark, 0xFF=bright (not implemented)
6	Data0	2	0x00, 0x00	counter#1 value (ranging 0 to 999, 0x0000 to 0x03E7) Most significant byte first, least significant byte last
7	Data1	2	0x00, 0x00	counter#2 value (ranging 0 to 999, 0x0000 to 0x03E7) Most significant byte first, least significant byte last
...	...			
21	Data15	2	0x00, 0x00	counter#16 value (ranging 0 to 999, 0x0000 to 0x03E7) Most significant byte first, least significant byte last

"Counters" are numbered like the following:

top		1	3	5	7
		2	4	6	8
		9	11	13	15
		10	12	14	16

- Even / Upper row counters (1,3,5,7,9,11,13,15) are Green
- Odd / Lower row counters (2,4,6,8,10,12,14,16) are Red

Option byte:

bit #	flag name	bit=1	bit=0
0 (LSB)	DASHES	Show data=0 as "- - -"	Show data=0 as "0" or nothing
1	NOTIFY_ALSO_DEC	Blink/beep on increment and decrement	Blink/beep only if incrementing value
2	3RDDOT	Third dot ON	Third dot OFF
3	EXPLICIT_ZERO_GREEN	Show data=0 as "---"/"0" for green numbers	Show nothing if data=0 for green numbers
4	EXPLICIT_ZERO_RED	Show data=0 as "---"/"0" for red numbers	Show nothing if data=0 for red numbers
5	NOBLINK	Do not Blink.	Blink 5 times the new number(s).
6	NOBEEP	Do not Beep.	Beep 2 sec when new number(s).
7 (MSB)	BLINKBEEP_ALSO_GREEN	Beep/Blink apply to red and green numbers	Beep/Blink apply only to red numbers

16360IP to host reply packet structure:

field	name	size (bytes)	default value	description
1	Reply	1	0x10	for the moment only 0x10 is implemented, which means "OK (data received)"